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ORIGINAL

FLOOD INSURANCE STUDY

CITY OF LOCKPORT, ILLINOIS

WILL COUNTY

COMPLETED
30

MAY 17, 1982

Federal Emergency Management Agency

COMMUNITY NUMBER - 170703

TABLE OF CONTENTS

		Page
1.0	INTRODUCTION	1
1.1	Purpose of Study	1
1.2	Authority and Acknowledgements	1
1.3	Coordination	1
2.0	AREA STUDIED	2
2.1	Scope of Study	2
2.2	Community Description	2
2.3	Principal Flood Problems	5
2.4	Flood Protection Measures	5
3.0	ENGINEERING METHODS	6
3.1	Hydrologic Analyses	6
3.2	Hydraulic Analyses	7
4.0	FLOOD PLAIN MANAGEMENT APPLICATIONS	8
4.1	Flood Boundaries	9
4.2	Floodways	9
5.0	INSURANCE APPLICATION	11
5.1	Reach Determinations	12
5.2	Flood Hazard Factors	12
5.3	Flood Insurance Zones	12
5.4	Flood Insurance Rate Map Description	13

TABLE OF CONTENTS (Continued)

		Page
6.0	OTHER STUDIES	13
7.0	LOCATION OF DATA	15
8.0	REFERENCES AND BIBLIOGRAPHY	15

FIGURES

Figure 1 -	Vicinity Map	3
Figure 2 -	Floodway Schematic	11

TABLES

Table 1 -	Summary of Discharges	7
Table 2 -	Floodway Data	10
Table 3 -	Flood Insurance Zone Data	14

EXHIBITS

Flood Profiles

Milne Creek	Panels 01P - 02P
Fiddyment Creek	Panel 03P

Flood Boundary and Floodway Map Index
Flood Boundary and Floodway Map

PUBLISHED SEPARATELY:

Flood Insurance Rate Map Index
Flood Insurance Rate Map

FLOOD INSURANCE STUDY

CITY OF LOCKPORT,
WILL COUNTY, ILLINOIS

1.0 INTRODUCTION

1.1 Purpose of Study

This Flood Insurance Study investigates the existence and severity of flood hazards in the City of Lockport, Will County, Illinois, and aids in the administration of the National Flood Insurance Act of 1968 and the Flood Disaster Protection Act of 1973. This study will be used to convert the City of Lockport to the regular program of flood insurance by the Federal Emergency Management Agency (FEMA). Local and regional planners will use this study in their efforts to promote sound flood plain management.

In some states or communities, flood plain management criteria or regulations may exist that are more restrictive or comprehensive than those on which these Federally-supported studies are based. These criteria take precedence over the minimum Federal criteria for purposes of regulating development in the flood plain, as set forth in the Code of Federal Regulations at 44 CFR, 60.3 (d). In such cases, however, it shall be understood that the state (or other jurisdictional agency) shall be able to explain these requirements and criteria.

1.2 Authority and Acknowledgements

The source of authority for this Flood Insurance Study is the National Flood Insurance Act of 1968 and the Flood Disaster Protection Act of 1973.

The hydrologic and hydraulic analyses for this study were performed by Alfred Benesch and Company for the Federal Emergency Management Agency, under Contract No. H-4714. This study was completed in May 1981.

1.3 Coordination

The designation of areas requiring detailed study was completed in a meeting on April 7, 1978, attended by representatives of the City of Lockport, the Study Contractor, FEMA, the Illinois Division of Water Resources and the Will County Regional Planning Commission. On October 11, 13 and 18, 1978, a legal notice was published in the Herald News announcing the intent to perform a flood elevation study for the City of Lockport.

On November 5, 1981, the results of the work by the Study Contractor were reviewed and accepted at a final coordination meeting attended by representatives of the Study Contractor, FEMA, and the community.

2.0 AREA STUDIED

2.1 Scope of Study

This Flood Insurance Study covers the incorporated area of the City of Lockport, Will County, Illinois. The area of study is shown on the Vicinity Map (Figure 1).

The areas studied by detailed methods were selected with priority given to all known flood hazard areas and areas of projected development or proposed construction for the next five years, through May 1986.

Approximate methods of analysis were used to study those areas having a low development potential or minimal flood hazards as identified at the initiation of the study. The scope and methods of study were proposed to and agreed upon by FEMA and the City of Lockport.

Floods caused by the overflow of the Illinois and Michigan Canal, Fiddyment Creek and Milne Creek were studied in detail within the corporate limits. However, the levees along the Illinois and Michigan Canal do not meet the FEMA levee policy requirement due to overtopping and the canal has been designated Zone A. The streams studied by approximate methods are: Fraction Run, Big Run, a tributary of Milne Creek which branches off at Division Street, the upstream portion of Fiddyment Creek, and two areas northeast of Fiddyment Creek; one in the vicinity of Maryknoll Drive and the other in the vicinity of Key West Drive.

2.2 Community Description

The City of Lockport is located in central northwestern Will County, Illinois, approximately 35 miles from downtown Chicago. The community area is 3.51 square miles, bounded on the northwest corner by the Village of Romeoville and by unincorporated areas of Will County on all other sides. The population in 1980 was 9,165. The population estimate in 1975 was 11,882, which represents a decrease of 23 per cent (Reference 1).

Lockport is primarily a residential community with a fair amount of industrial, agricultural, and commercial uses as well. Most of the development is located along and to the east of State Street, which is the main commercial street, and stretches from Fraction Run to just north of Fiddyment Creek.

The climate of the area is best described as humid continental with warm to hot summers and moderately cold winters (Reference 2). The seasons are markedly distinct and, in general, lag three to five weeks behind the solstices. The proximity of Lake Michigan to the study area has a moderating effect on the climate. The average annual temperature is about

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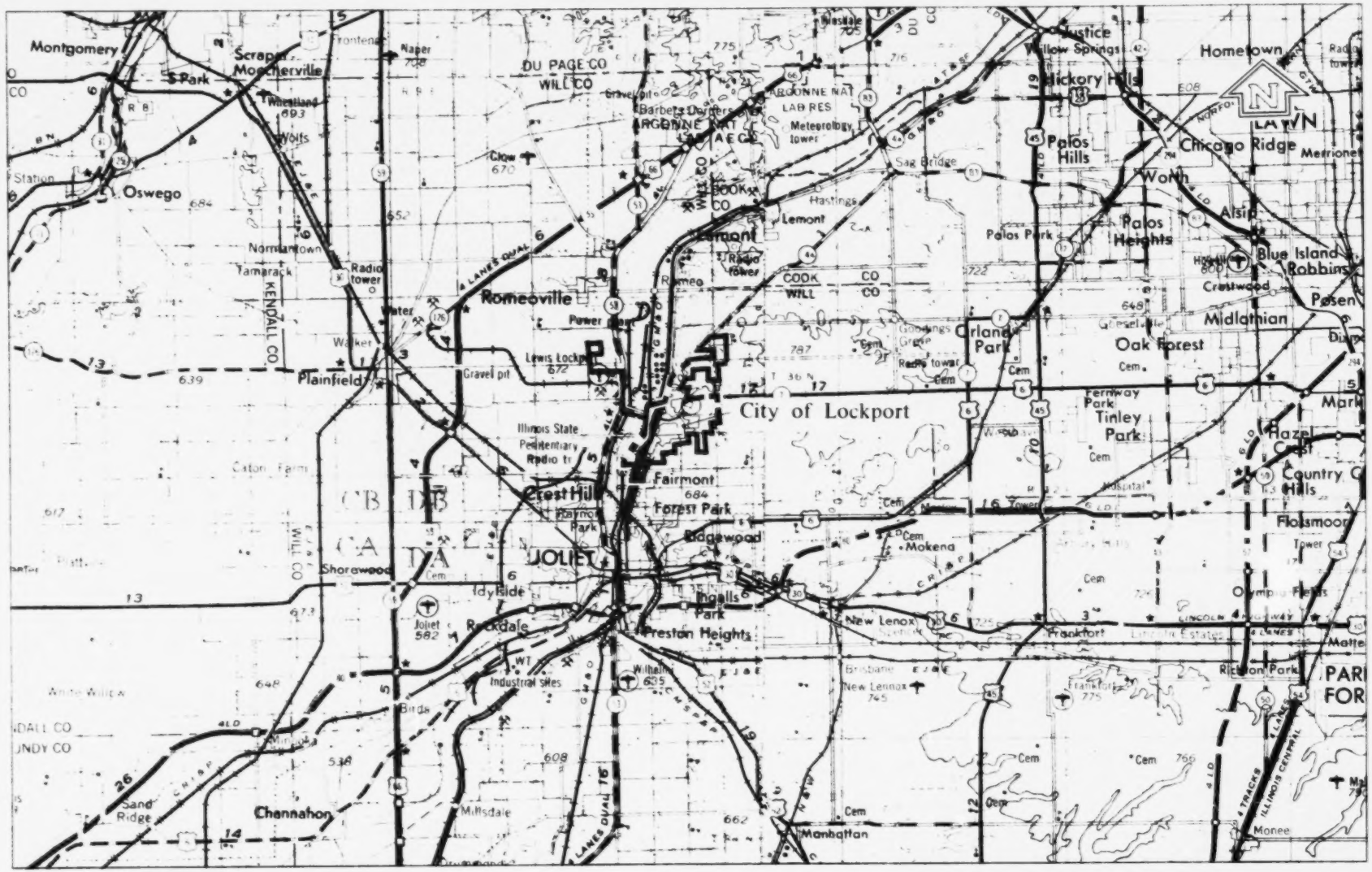

FIGURE 1

FEDERAL EMERGENCY MANAGEMENT AGENCY

CITY OF LOCKPORT, IL
(WILL CO.)

APPROXIMATE SCALE

4 0 4 8 12 MILES

VICINITY MAP

51 degrees Fahrenheit (F.). Average monthly temperatures vary from 24 degrees F. in January to 74 degrees F. in July, with extremes ranging from -25 degrees F. to 110 degrees F. The average annual temperature by month is:

January	23.9	May	60.6	September	65.4
February	27.3	June	70.6	October	55.0
March	37.2	July	74.2	November	40.4
April	50.5	August	72.8	December	28.0

Precipitation within the area occurs as rain, sleet, snow and hail, with average annual precipitation amounting to 34 inches. About 60 per cent of the annual rainfall occurs from April to September. The average annual precipitation by month is:

January	1.64	May	3.69	September	3.46
February	1.53	June	3.83	October	2.69
March	2.62	July	3.92	November	2.09
April	3.68	August	3.14	December	1.95

The streams which pass through Lockport are Deep Run, the Illinois and Michigan Canal and four of its tributaries: Fraction Run, Milne Creek, Fiddyment Creek and Big Run.

The City of Lockport lies in and along the Des Plaines River valley, which consists of a low flat plain about one mile in width. Due to the influence of the Valparaiso Moraine, which is east of Romeoville in a northwest-southeast direction, the bluffs overlooking the valley are steep.

Most of the soil above the glacial drift along the Illinois and Michigan Canal consists of a brown or yellow-gray silty loam, while the greater part of that lying above the areas of alluvium and bedrock is a mined loam largely black in color. Beneath the glacial drift in this area is the Silurian bedrock of the Niagaran Age, and below this is the Alexandrian series of limestones and dolomites. The Niagaran formation consists of a fairly thick bedded weathered cherty dolomite of a buff-yellow color. Other characteristics of the formation are joints, facets, solution cavities, stylolites, fossils and chert modules (Reference 3).

The Illinois and Michigan Canal, connecting Lake Michigan at Chicago with the Illinois River at LaSalle-Peru, was constructed by the State of Illinois and was opened for barge traffic in 1848. The route of the main canal extends from the South Branch Chicago River at Ashland Avenue, Chicago, southwestward to the east bank of the Des Plaines River; and then southward, generally parallel and adjacent to that stream, to the City of Joliet. At Joliet, the Illinois and Michigan Canal crosses the Des Plaines River, then parallels the Des Plaines and Illinois Rivers to its confluence with the Illinois River in LaSalle-Peru. Presently, the Illinois and Michigan Canal is not used for barge traffic. The total length of the Illinois and Michigan Canal is 96.4 miles (Reference 3).

The canal within the study reach has a length of 2.6 miles and its average slope is 9.2 feet per mile. The dimensions of an average canal cross section are a width of 100 feet and a depth of 12 feet.

Big Run originates to the east of Lockport. It flows in a general westerly direction from its source to the foot of the bluffs and then to the Des Plaines River Valley to the Illinois and Michigan Canal. The main stream is about three miles in length.

Fiddyment Creek originates to the east and north of Lockport. It flows westward for 4.4 miles from its source along the northern outskirts of Lockport to its junction with the Illinois and Michigan Canal just north of Lockport. The average slope of Fiddyment Creek is 46 feet per mile.

Milne Creek originates to the southeast of Lockport just outside the corporate limits. It flows westward for 3.8 miles from its source through the community to its junction with the Illinois and Michigan Canal. The average slope of Milne Creek is 42 feet per mile.

Fraction Run originates to the east of Lockport. The stream flows southwesterly from its source for approximately 3.5 miles and then westerly to the flood plain of the Des Plaines River, entering the Illinois and Michigan Canal. The length of the main stem from its headwaters to the canal is about seven miles (Reference 4).

Development within the flood plain is primarily residential except the undeveloped area south of Division Street and west of State Street.

2.3 Principal Flood Problems

Within residential and rural parts of Lockport, the principle flooding problems are caused by the tributaries to the Illinois and Michigan Canal. Floods are caused by intense thunderstorms which occur in late summer and early fall. These tributary floods are relatively more severe because of siltation and vegetation in the channels and because debris accumulates at culverts and bridges. Milne Creek is the only tributary which is subject to floods of a more serious nature than the other tributaries. Milne Creek overflows its left bank for a distance of about 800 feet below an undersized culvert at Seventh Street, causing inconvenience and some minor damage to residences. Low banks also caused some flooding further upstream beyond the Madison Street bridge, but no damage has been recorded, mainly because the citizenry has not yet encroached upon the flood plain in that reach (Reference 4).

2.4 Flood Protection Measures

Presently, no protective structures exist within the City of Lockport.

3.0 ENGINEERING METHODS

For the flooding sources studied in detail in the community, standard hydrologic and hydraulic study methods were used to determine the flood hazard data required for this study. Flood events of a magnitude which are expected to be equalled or exceeded once on the average during any 10-, 50-, 100-, or 500-year period (recurrence interval) have been selected as having special significance for flood plain management and for flood insurance premium rates. These events, commonly termed the 10-, 50-, 100-, and 500-year floods, have a 10, 2, 1, and 0.2 per cent chance, respectively, of being equalled or exceeded during any year. Although the recurrence interval represents the long term average period between floods of a specific magnitude, rare floods could occur at short intervals or even within the same year. The risk of experiencing a rare flood increases when periods greater than one year are considered. For example, the risk of having a flood which equals or exceeds the 100-year flood (one per cent chance of annual occurrence) in any 50-year period is about 40 per cent (four in ten), and for any 90-year period, the risk increases to about 60 per cent (six in ten). The analyses reported here reflect flooding potentials based on conditions existing in the community at the time of completion of this study. Maps and flood elevations will be amended periodically to reflect future changes.

3.1 Hydrologic Analyses

Hydrologic analyses were carried out to establish the peak discharge-frequency relationships for floods of the selected recurrence intervals for each flooding source studied in detail affecting the community.

Estimates of discharge for the reach of the Illinois and Michigan Canal upstream from Joliet were made by Harza Engineering. In this reach, discharges are limited by the bank-full capacity of the Illinois and Michigan Canal. Water which overflows the banks flows into the Deep Run basin by means of a diversion weir at the Texaco Plant and a pipe-overflow under Canal Street. Hydraulic computations were made to determine the bank-full capacity of the Illinois and Michigan Canal. Regional equations and the State Standard Method (Reference 5) were used, along with rainfall flooding depth tables for Illinois (Reference 6) to determine flood discharges and volumes available for interbasin spillage. Flood frequency relationships for the Illinois and Michigan Canal upstream from Joliet were computed using mass-balance techniques based on the channel capacity and the flood plain area available for spillage. Decreasing discharges on the Illinois and Michigan Canal are due to hydrologic losses occurring at the Texaco Diversion, Texaco Dam, 13th Street Diversion, and downstream of the confluence of Fraction Run.

Fiddyment Creek was studied in detail as part of a Flood Insurance Study for unincorporated areas of Will County (Reference 3).

Discharges for the 10- and 100-year floods were computed for Fiddyment Creek by Harza, using the regional equation and the State Standard Method (Reference 5). This data was plotted on log-normal probability paper and the 50- and 500-year flood discharges were estimated by linear interpolation and extrapolation, respectively.

The hydrologic analysis for Milne Creek included a multiple regression analysis to estimate the flood magnitudes at recurrence intervals of 10, 50, 100, and 500 years. The regression equations, with independent variables of drainage area, slope, rainfall intensity and an areal factor were developed by the U.S. Geological Survey (USGS) in cooperation with the State of Illinois, using streamflow data from 241 sampling sites (Reference 7). The regression equations were used to compute discharges at the mouth of the tributaries and wherever the discharge changed by at least 10 per cent.

Peak discharges for the 10-, 50-, 100-, and 500-year floods of each flooding source studied in detail in the community are shown in Table 1.

TABLE 1 - SUMMARY OF DISCHARGES

FLOODING SOURCE AND LOCATION	DRAINAGE AREA (SQ MILES)	PEAK DISCHARGE (CFS) 10-YEAR	50-YEAR	100-YEAR	500-YEAR
MILNE CREEK					
At mouth	2.28	409	634	732	961
At State Route 7	2.00	370	575	663	871
At Division Street	0.96	223	348	403	530
FIDDYMENT CREEK					
At mouth	4.7	1,060	1,800	2,160	3,130

3.2 Hydraulic Analyses

Analyses of the hydraulic characteristics of the streams in the community were carried out to provide estimates of the elevations of the floods of the selected recurrence intervals along each flooding source studied in detail.

Cross sections for the backwater analyses were determined from field surveys with some overbank portion cross sections being determined from topographic maps at a scale of 1:24000 (Reference 8). The locations of the surveyed cross sections were determined by examining maps of historic flooding (Reference 9) in order to find areas of changing flood width. Therefore, the cross sections are representative of the actual flow conditions. Cross section locations were at close intervals above and below bridges, dams and culverts in order to compute the significant backwater effects of these structures. All bridges were surveyed to determine structural geometry.

Locations of selected cross sections used in the hydraulic analyses are shown on the Flood Profiles. For stream segments for which a floodway was computed (Section 4.2), selected cross section locations are also shown on the Flood Boundary and Floodway Map.

Roughness coefficients (Manning's "n" values) for these computations were assigned on the basis of field inspection, analyses of photographs, engineering judgment, previous analyses by other agencies, and by use of the USGS Water Supply Paper 1849 (Reference 10) and Supplement B of the U.S. Soil Conservation Service National Engineering Handbook, Section Five (Reference 11). These values are shown below:

Stream	Channel "n" Value	Overbank "n" Value
Milne Creek	0.025-0.055	0.04-0.065
Fiddyment Creek	0.042-0.055	0.04-0.07

The HEC-2 (Reference 12) backwater analysis for Milne Creek was started at the confluence with the Illinois and Michigan Canal, using the slope-area method for starting water-surface elevations.

The WSP-2 (Reference 13) backwater analysis for Fiddyment Creek was started at the confluence with the Illinois and Michigan Canal. The starting water-surface elevations were established by using the 10-year flood elevation on the Illinois and Michigan Canal for floods of selected recurrence intervals.

Flood profiles were drawn showing the computed water-surface elevations for floods of the selected recurrence intervals.

For the areas studied by approximate methods, the elevation of the flood plain was determined from historic records and topographic maps developed by the Northeastern Illinois Planning Commission (Reference 9).

The hydraulic analyses for this study are based only on the effects of unobstructed flow. The flood elevations as shown on the profiles are, therefore, considered valid only if hydraulic structures, in general, remain unobstructed and if channel and overbank conditions remain essentially the same as ascertained during this study.

All elevations are referenced from National Geodetic Vertical Datum of 1929 (NGVD); elevation reference marks used in the study are shown on the maps.

4.0 FLOOD PLAIN MANAGEMENT APPLICATIONS

The National Flood Insurance Program encourages state and local governments to adopt sound flood plain management programs. Therefore, each Flood Insurance Study includes a flood boundary map designed to assist communities in developing sound flood plain management measures.

4.1 Flood Boundaries

In order to provide a national standard without regional discrimination, the 100-year flood has been adopted by FEMA as the base flood for purposes of flood plain management measures. The 500-year flood is employed to indicate additional areas of flood risk in the community. For each stream studied in detail, the boundaries of the 100-year and the 500-year floods have been delineated using the elevations determined at each cross section; between cross sections the boundaries were interpolated using topographic maps with an original scale of 1:24000 with a contour interval of 10 feet after being enlarged to a scale of 1:6000 (Reference 8). The boundaries of 100-year approximate flooding were also delineated using the above referenced maps.

The boundaries of the 100- and 500-year floods are shown on the Flood Boundary and Floodway Map. Small areas within the flood boundaries may lie above the flood elevations and, therefore, not be subject to flooding; owing to lack of detailed topographical information or to limitations of the map scale, such areas are not shown. In cases where the 100-year and the 500-year flood boundaries are close together, only the 100-year boundary has been shown.

4.2 Floodways

Encroachment on flood plains, such as artificial fill, reduces the flood-carrying capacity, increases the flood heights of streams, and increases flood hazards in areas beyond the encroachment itself. One aspect of flood plain management involves balancing the economic gain from flood plain development against the resulting increase in flood hazard. For purposes of the National Flood Insurance Program, the concept of a floodway is used as a tool to assist local communities in this aspect of flood plain management. Under this concept, the area of the 100-year flood is divided into a floodway and a floodway fringe. The floodway is the channel of a stream plus any adjacent flood plain areas that must be kept free of encroachment in order that the 100-year flood may be carried without substantial increases in flood heights. Minimum standards of FEMA limit such increases in flood heights to 1.0 foot, provided that hazardous velocities are not produced. However, under Chapter 19, Section 65f, Illinois Revised Statutes of 1973, encroachment in the flood plain is limited to that which will cause only an insignificant increase in flood heights (Reference 14). Thus, at the recommendation of the Illinois Division of Water Resources, a floodway having no more than a 0.1-foot surcharge has been delineated for this study.

The floodway for this study was computed on the basis of equal conveyance reduction from each side of the flood plain. The results of these computations were tabulated at selected cross sections for each stream segment for which a floodway was computed (Table 2).

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FLOODING SOURCE		FLOODWAY			BASE FLOOD WATER SURFACE ELEVATION		
CROSS SECTION	DISTANCE[1]	WIDTH (FEET)	SECTION AREA (SQ. FEET)	MEAN VELOCITY (FEET/SEC.)	WITH FLOODWAY (NGVD)	WITHOUT FLOODWAY (NGVD)	DIFFERENCE
MILNE CREEK							
A	453	27	150	4.9	591.2	591.2	0.0
B	944	17	127	5.7	596.9	596.8	0.1
C	2020	18	78	9.4	607.1	607.1	0.0
D	2624	99	202	3.6	616.9	616.9	0.0
E	4374	29	122	5.4	629.2	629.1	0.1
F	5741	40	197	3.4	639.4	639.3	0.1
G	8125	142	455	1.5	653.3	653.2	0.1
FIDDYMENT CREEK							
A	2160	92	359	6.0	597.9	597.8	0.1
B	3900	82	390	5.0	604.7	604.6	0.1

[1]FEET ABOVE MOUTH

TABLE 2

FEDERAL EMERGENCY MANAGEMENT AGENCY

CITY OF LOCKPORT, IL
(WILL CO.)

FLOODWAY DATA

MILNE CREEK - FIDDYMENT CREEK

As shown on the Flood Boundary and Floodway Map, the floodway widths were determined at cross sections; between cross sections, the boundaries were interpolated. In cases where the boundaries of the floodway and the 100-year flood are either close together or collinear, only the floodway boundary has been shown.

The area between the floodway and the boundary of the 100-year flood is termed the floodway fringe. The floodway fringe thus encompasses the portion of the flood plain that could be completely obstructed without increasing the water-surface elevation of the 100-year flood more than 0.1 foot at any point. Typical relationships between the floodway and the floodway fringe and their significance to flood plain development are shown in Figure 2.

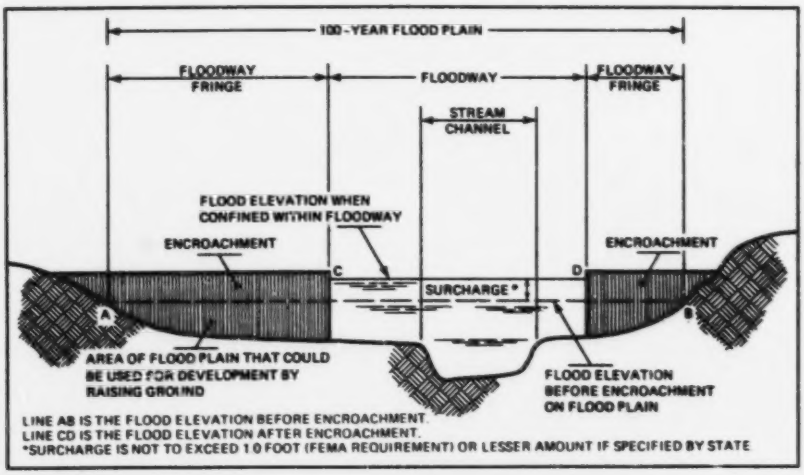
100-YEAR FLOOD PLAIN
FLOODWAY FRINGE
FLOODWAY
FLOODWAY FRINGE
STREAM CHANNEL
FLOOD ELEVATION WHEN CONFINED WITHIN FLOODWAY
ENCROACHMENT
ENCROACHMENT
C
D
SURCHARGE *
A
B
AREA OF FLOOD PLAIN THAT COULD BE USED FOR DEVELOPMENT BY RAISING GROUND
FLOOD ELEVATION BEFORE ENCROACHMENT ON FLOOD PLAIN
LINE AB IS THE FLOOD ELEVATION BEFORE ENCROACHMENT.
LINE CD IS THE FLOOD ELEVATION AFTER ENCROACHMENT.
*SURCHARGE IS NOT TO EXCEED 1.0 FOOT (FEMA REQUIREMENT) OR LESSER AMOUNT IF SPECIFIED BY STATE

FIGURE 2 - Floodway Schematic

The floodways in this report are recommended to local agencies as minimum standards that can be adopted or that can be used as a basis for additional studies.

5.0 INSURANCE APPLICATION

In order to establish actuarial insurance rates, FEMA has developed a process to transform the data from the engineering study into flood insurance criteria. This process includes the determination of reaches, Flood Hazard Factors (FHF), and flood insurance zone designations for each flooding source affecting the City of Lockport.

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5.1 Reach Determinations

Reaches are defined as lengths of watercourses having relatively the same flood hazard, based on the average weighted difference in water-surface elevations between the 10- and 100-year floods. This difference does not have a variation greater than that indicated in the following table for more than 20 per cent of the reach.

Average Difference Between 10- and 100-year Floods	Variation
Less than 2 feet	0.5 foot
2 to 7 feet	1.0 foot
7.1 to 12 feet	2.0 feet
More than 12 feet	3.0 feet

The locations of the reaches determined for the City of Lockport are shown on the Flood Profiles and are summarized in Table 3, "Flood Insurance Zone Data."

5.2 Flood Hazard Factors

The FHF is used to correlate flood information with insurance rate tables. Correlations between property damage from floods and their FHFs are used to set actuarial insurance premium rate tables based on FHFs from 005 to 200.

The FHF for a reach is the average weighted difference between the 10- and 100-year flood water-surface elevations expressed to the nearest 0.5 foot, and shown as a three-digit code. For example, if the difference between water-surface elevations of the 10- and 100-year floods is 0.7 foot, the FHF is 005; if the difference is 1.4 feet, the FHF is 015; if the difference is 5.0 feet, the FHF is 050. When the difference between the 10- and 100-year flood water-surface elevations is greater than 10.0 feet, accuracy for the FHF is to the nearest foot.

5.3 Flood Insurance Zones

After the determination of reaches and their respective FHFs, the entire incorporated area of the City of Lockport was divided into zones, each having a specific flood potential or hazard. Each zone was assigned one of the following flood insurance zone designations:

Zone A: Special Flood Hazard Areas inundated by the 100-year flood, determined by approximate methods; no base flood elevations are shown or FHFs determined.

Zones A2, A3, A5:	Special Flood Hazard Areas inundated by the 100-year flood, determined by detailed methods; base flood elevations are shown, and zones subdivided according to FHF.
Zone B:	Areas between the Special Flood Hazard Area and the limits of the 500-year flood, including areas of the 500-year flood plain that are protected from the 100-year flood by dike, levee, or other water control structure; or areas subject to certain types of 100-year shallow flooding where depths are less than 1.0 foot; and areas subject to 100-year flooding from sources with drainage areas less than 1 square mile. Zone B is not subdivided.
Zone C:	Areas of minimal flooding.

Table 3, "Flood Insurance Zone Data," summarizes the flood elevation differences, FHFs, flood insurance zones, and base flood elevations for each flooding source studied in detail in the community.

5.4 Flood Insurance Rate Map Description

The Flood Insurance Rate Map for the City of Lockport is, for insurance purposes, the principal result of the Flood Insurance Study. This map (published separately) contains the official delineation of flood insurance zones and base flood elevation lines. Base flood elevation lines show the locations of the expected whole-foot water-surface elevations of the base (100-year) flood. This map is developed in accordance with the latest flood insurance map preparation guidelines published by FEMA.

6.0 OTHER STUDIES

In 1951, the Illinois Division of Waterways published a "Survey Report for Flood Control, Illinois and Michigan Canal and Tributaries, Joliet to Calumet Sag Channel" (Reference 4). This report was based on a study of the flooding on the Illinois and Michigan Canal and its tributaries in the reach between its junction with the Des Plaines River in the City of Joliet and the Calumet Sag Channel. The report proposed several improvements to the canal. Those that would directly affect Lockport included clearing and cleaning the canal, the diversion of Long Run Creek into the Chicago Sanitary and Ship Canal and improvements to Milne Creek.

A Flood Insurance Study is currently in progress for the unincorporated areas of Will County (Reference 3) and the Village of Romeoville (Reference 15). This study is agreement with all the above studies.

A Flood Hazard Boundary Map has been published for the community (Reference 16). The differences between the Flood Hazard Boundary Map and this study are justified due to the more detailed nature of this Flood Insurance Study.

FLOODING SOURCE	PANEL[1]	ELEVATION DIFFERENCE[2] BETWEEN 1.0% (100-YEAR) FLOOD AND			FLOOD HAZARD FACTOR	ZONE	BASE FLOOD ELEVATION[3] (NGVD)
		10% (10-YEAR)	2% (50-YEAR)	0.2% (500-YEAR)			
MILNE CREEK							
REACH 1	0002,0003	–1.4	–0.4	0.7	015	A3	VARIES–SEE MAP
REACH 2	0003	–1.1	–0.2	0.4	010	A2	VARIES–SEE MAP
FIDDYMENT CREEK							
REACH 1	0002	–2.5	–0.9	1.6	025	A5	VARIES–SEE MAP
REACH 2	0002	–1.3	–0.4	1.0	015	A3	VARIES–SEE MAP

[1]FLOOD INSURANCE RATE MAP PANEL
[2]WEIGHTED AVERAGE
[3]ROUNDED TO NEAREST FOOT

TABLE 3

FEDERAL EMERGENCY MANAGEMENT AGENCY

CITY OF LOCKPORT, IL
(WILL CO.)

FLOOD INSURANCE ZONE DATA

MILNE CREEK - FIDDYMENT CREEK

This report either supersedes or is compatible with all previous studies published on streams studied in this report and should be considered authoritative for the purposes of the National Flood Insurance Program.

7.0 LOCATION OF DATA

Information concerning the pertinent data used in preparation of this study can be obtained by contacting the Natural and Technological Hazards Division, Federal Emergency Management Agency, 300 South Wacker Drive, (24th Floor), Chicago, Illinois 60606.

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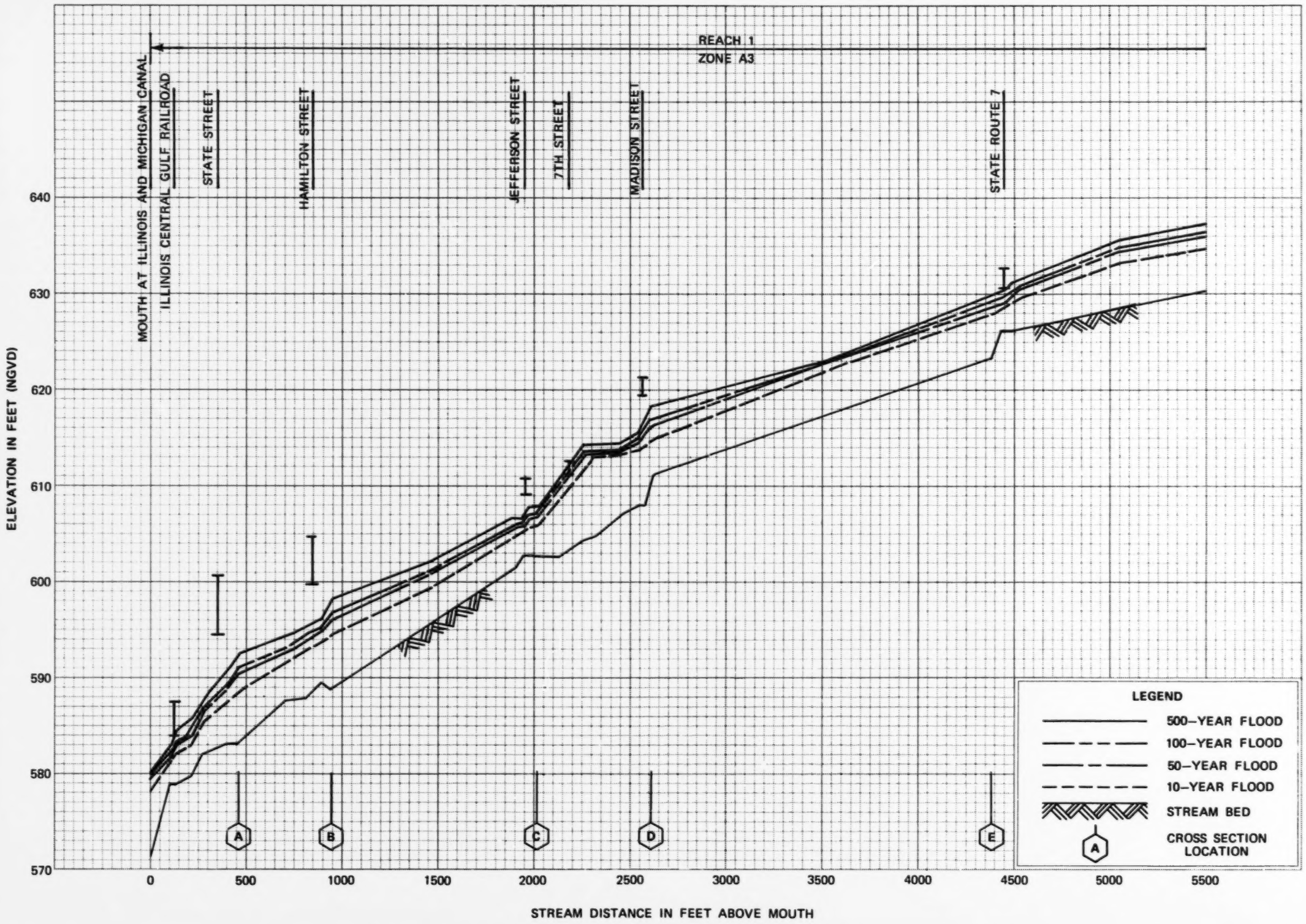

FLOOD PROFILES

MILNE CREEK

FEDERAL EMERGENCY MANAGEMENT AGENCY

CITY OF LOCKPORT, IL
(WILL CO.)

01P

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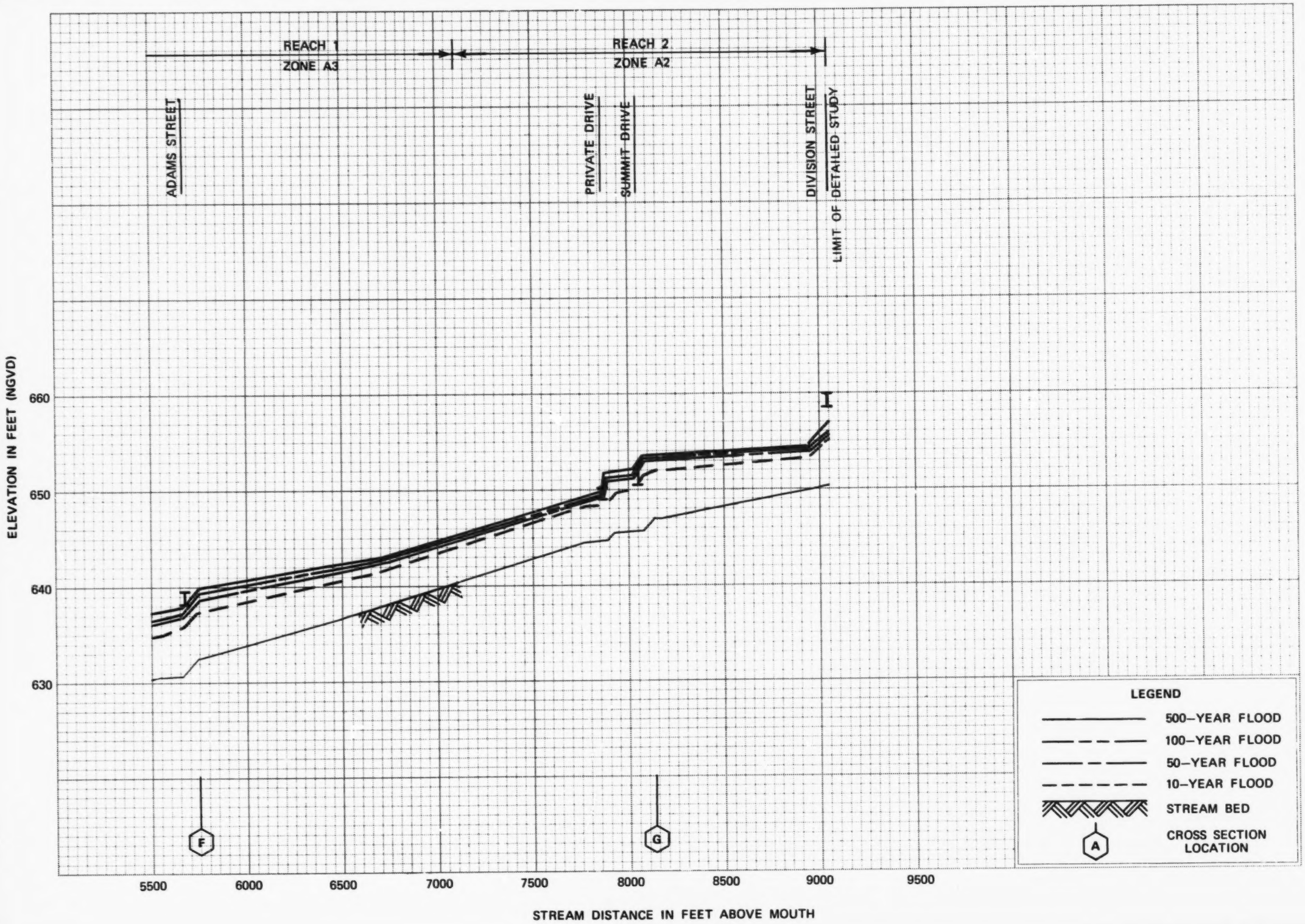

FLOOD PROFILES

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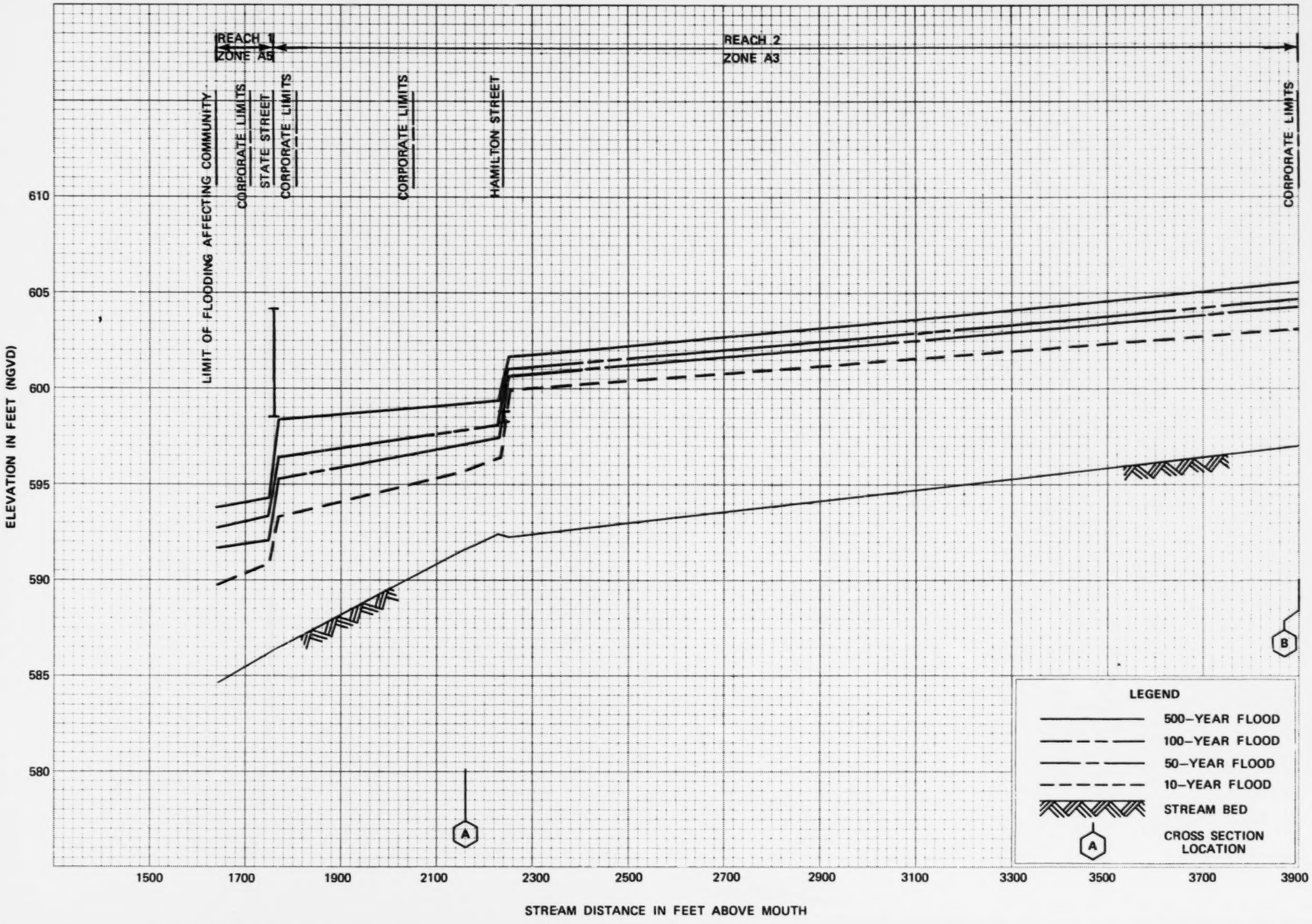

FLOOD PROFILES

FIDDYMENT CREEK

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